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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,479	01/11/2001	Kari Peltonen	30-537	8773

7590 04/10/2002

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EXAMINER

OCAMPO, MARIANNE S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 04/10/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,479

Applicant(s)

PELTONEN ET AL.

Examiner

Marianne S. Ocampo

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." The following references had listed in the specification: EP patents 92921912 & 9100973, WO publications 96/32186 & 96/33007, and US Patents 4,030,969; 5,492,409; 5,556,200; 5,564,827; 4,936,689; 5,279,709 & 5,575,559, and PCT application PCT/FI96/00330. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24, 29, 33, 36 – 41, 47 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Aanonsen et al. (US 4,213,712).

4. Concerning claim 24, Aanonsen et al. disclose an apparatus for mixing a fluid medium with a solids-liquid suspension comprising a mixer casing (2) having an inlet attached by a flange (closest to the inlet piping 12 on the left) to inlet piping and an outlet (opposite the inlet on the left side of the casing 2) and defining a flow axis between the inlet and the outlet, a conduit (12) for feeding the fluid medium (E) into the casing (2) and a rotor (1) freely rotatably mounted in the casing (2) for free rotation (i.e. without use of a drive motor) about an axis of rotation which is transverse to the flow axis, as in figs. 1 and 3, and in cols. 2 – 3.

5. With regards to claim 29, Aanonsen et al. further disclose the apparatus further comprising at least one stationary mixing member (blades, 15) disposed within the casing (2), as in fig. 3.

6. Regarding to claim 33, Aanonsen et al. also disclose the rotor (1) having a center (along 16) and the rotor (1) being formed by a shaft mounted on bearings in the casing (2) and blades (15) which leave the rotor center open, as in fig. 3.

7. With respect to claim 36, Aanonsen et al. disclose the conduit (12) feeding the fluid medium (E) and a solids-liquid suspension (A) into the casing (2) and the rotor (1) including

mixing blades (15) which are contacted by the fluid medium and solids-liquid suspension (A, E) introduced by the conduit (12) so that rotation of the mixing rotor (1) is effected, as in figs 1 and 3 and cols. 2 – 3.

8. Concerning claims 37 – 39, Aanonsen et al. disclose an apparatus for mixing a fluid medium (E or B) with a solids-liquid suspension (A which is a salt solution) comprising a mixer casing (2) defining an interior space and having an inlet (adjacent conduit 12) for introducing a mass flow of material which includes the solids-liquid suspension (A) into the interior space and an outlet (opposite the inlet) for discharging a mixture of the fluid medium (E) and solids-liquid suspension (A) from the interior space, a conduit (13, 12) for feeding the fluid medium (E) into contact with the solids-liquid suspension (A) and a mixing rotor (1) freely rotatably mounted in the casing (2) for free rotation (i.e. without use of a drive motor) about an axis of rotation (the axis of rotation being transverse to the flow axis/direction of incoming fluid medium and solids-liquid suspension into the casing) and the rotor (1) including mixing blades (14, 15) positioned for contact with the fluid medium (E) and solids-liquid suspension (A) introduced into the casing (2) to thereby responsively cause the rotor (1) to rotate and mix the fluid medium (E) with the solids-liquid suspension (A), as in figs 1 and. 3 and cols. 2 – 3.

9. With respect to claim 40, Aanonsen et al. further disclose the conduit (13) introduces the fluid medium (E) directly into the interior space of the mixer casing, as in fig. 1.

10. Regarding claim 41, Aanonsen et al. also disclose the inlet including inlet piping (12) for the mass flow of material wherein the conduit (13) introduces the fluid medium (E) into the inlet piping (12), as in fig. 1.

11. Concerning claim 47, Aanonsen et al. further disclose the apparatus further comprising at least one stationary mixing member (blades, 15) disposed within the casing (2), as in fig. 3.

12. Regarding to claim 51, Aanonsen et al. also disclose the rotor (1) having a center (along 16) and the rotor (1) being formed by a shaft mounted on bearings (3) in the casing (2), as in fig. 3.

13. Claims 24, 29 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Fickle (US 1,636,127).

14. Concerning claim 24, Fickle discloses an apparatus for mixing a fluid medium with a solids-liquid suspension comprising a mixer casing (5) having an inlet (end of pipe 15) attached by a flange to inlet piping and an outlet (9) and defining a flow axis between the inlet and the outlet, a conduit (15) for feeding the fluid medium (water) into the casing (5) and a rotor (10, 12) freely rotatably mounted in the casing (5) for free rotation (i.e. without use of a drive motor)

about an axis of rotation which is transverse to the flow axis, as in figs. 1 - 2 and in the specification.

15. With regards to claim 29, Fickle further discloses the apparatus further comprising at least one stationary mixing member (blades, 14) disposed within the casing (5), as in figs. 1 - 2.

16. Regarding claim 36, Fickle also discloses the conduit (15) feeding the fluid medium (water) and a solids-liquid suspension (such as soda syrup or the like for making a beverage) into the casing (5) and the rotor (10, 12) including mixing blades (14) which are contacted by the fluid medium and solids-liquid suspension introduced by the conduit (15) so that rotation of the mixing rotor (10, 12) is effected, as in figs 1 - 2.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 25 – 28, 30 – 32, 34 – 35, 42 – 46, 48 - 50 and 52 – 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aanonsen et al. in view of Schafhaus (US 431,624).

19. Concerning claims 25 and 42, Aanonsen et al. fail to disclose the inlet having at least one throttling member which throttles the mass flow of material into the casing. Schafhaus teaches an apparatus for mixing having an inlet (defined by the opening of the hopper C) which has at least one throttling member (C^1 , C^2 , C^3) which throttles a mass of flow of material (supply of malt) into a casing (A, A^1), as in fig. 2 and in the specification, page 1. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Aanonsen et al. by adding the embodiment taught by Schafhaus in order to provide an improved mixing apparatus which has the ability to regulate the supply flow of material into the casing, thereby ensuring adequate and uniform supply of material for mixing is conducted into the casing.

20. With respect to claims 26 and 43, Schafhaus further teaches the throttling member (C^1 , C^2 , C^3) comprising at least one rib (in the form of a slide bar or valve, C^1) mounted in the vicinity of the inlet in the casing (A, A^1) capable of causing the mass center of the mass flow of material entering the casing to deviate from flow centered on an axis of rotation, as in fig. 2.

21. Regarding claims 27 and 44, Schafhaus also teaches the throttling member (C^1 , C^2 , C^3) comprising a slide valve (C^1) mounted in the vicinity of the inlet in the casing (A, A^1)

capable of causing the mass center of the mass flow of material entering the casing to deviate from flow centered on an axis of rotation, as in fig. 2.

22. With regards to claims 28 and 45, Schafhaus further teaches the valve (C^1) comprising a part of the casing (A , A^1 , C) which is attached to an inlet flange of the casing (A , A^1), as in fig. 2.

23. With respect to claim 46, Schafhaus further teaches the inlet including inlet piping (in the form of a hopper, C) for the mass flow of material and the throttling member comprising a valve (C^1) mounted in the vicinity of the inlet piping (C), as in fig. 2.

24. Concerning claims 29 and 47, Schafhaus teaches the apparatus further having at least one stationary mixing member (B) disposed within the casing, as in fig. 2. It is considered obvious to modify the apparatus of Aanonsen et al., by adding the embodiment taught by Schafhaus, in order to provide additional mixing and guide elements which ensures thorough mixing of the materials to be mixed in the casing.

25. With regards to claims 30 and 48, Schafhaus further teaches the stationary mixing members (B) being mounted at least 90 degrees from the outlet (F) of the casing opposite a direction of rotation of a rotor (F^1) in the casing, as in fig. 2. The same motivation applied in claims 29 and 47 above is applied here.

26. Regarding claims 31 and 49, Schafhaus further teaches the stationary mixing members (B) comprising a rib attached to a wall of the casing (A, A¹), as in fig. 2.

27. With regards to claims 32 and 50, Schafhaus also teaches the outlet of the casing (A, A¹) including a diffuser like outlet pipe (F), as in fig. 2. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Aanonsen et al., by adding the embodiment taught by Schafhaus in order to provide an improved and alternative design for a mixing apparatus.

28. Concerning claims 34 and 52, Schafhaus also teaches the inlet (defined by an opening in the hopper C, or one adjacent the slide bar C¹) and the outlet (F) being disposed with respect to each other so that direction of fluid flow changes at most about 100 degrees from the inlet to the outlet, as in fig. 2. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Aanonsen et al., by adding the embodiment taught by Schafhaus in order to provide an alternative design and flow pattern for a mixing apparatus.

29. Regarding claims 35 and 53, Schafhaus further teaches the outlet (F) is tangential to the direction of the rotor (F¹), as in fig. 2. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Aanonsen et al., by adding the embodiment taught by Schafhaus in order to provide an alternative design and flow pattern for a

mixing apparatus, as well as provide a thorough mixing within the casing, as in the specification, page 1.

Conclusion

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents 4,793,711 (Ohlson), 3,776,702 (Chant), 1,156,409 (Klein) and EP patent 664,150 (Peltonen et al.).

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-1039. The examiner can normally be reached on Mondays to Fridays from 8:00 A.M. to 4:30 P.M..

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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33. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

M.S.O.
April 5, 2002

M. Savoy
MATTHEW C. SAVAGE
PRIMARY EXAMINER